

Cultural ecosystem services of green infrastructure: the comparison between Russia and Japan

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Over the past decades, ecosystems of the Earth at all levels from local to global have undergone significant changes due to the increasing in all types of anthropogenic pressure on the environment. The anthropogenic pressure has led to significant degradation of many ecosystem services. Ecosystem services are all those benefits that people receive from ecosystems. Four types of ecosystem services are distinguished: providing, such as the production of food and water; regulatory, such as the control of climate and natural disasters; cultural services, as well as supporting services that are necessary for the production of all other ecosystem services. Due to degradation of ecosystems, the task of protection and rational use of ecosystem services is particularly relevant. For the solution of this task, we propose to use the concept of "green infrastructure". The green infrastructure includes both natural areas (such as forests, grasslands, wetlands, sea coasts, river banks, and others), as well as green spaces (parks, and other elements) that perform the functions of regulating runoff and protecting against floods and other natural disasters, purifying air and water, providing habitats for animals and birds, recreational use, and others. We apply an approach that takes into account the complex pattern of the green infrastructure. We pay special attention to the multifunctionality of the green infrastructure, its implementation of a whole complex of various ecosystem services, including regulating and cultural services. A comparative analysis of the usage and recognition of green infrastructure in Japan and Russia with varying economic, social and environmental conditions and with long-standing traditions of environmental management is carried out in this study. We take into consideration landscape differences and local cultural features of both countries. This ethno cultural cross-analysis is very important not only from a scientific, but also from a humanitarian point of view, since it contributes to a better understanding of each other by representatives of these territorially close, but simultaneously very different and for a long time isolated cultures.

Keywords: ecosystem services, green infrastructure, cultural ecosystem services, landscape and ethno cultural differences, natural disasters, multifunctionality